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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,658	04/14/2004	George Robert Gregory	1323.01	8485

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EXAMINER	
LIN, KUANG Y	

ART UNIT	PAPER NUMBER
1725	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/825,658	GREGORY ET AL.	
	Examiner	Art Unit	
	Kuang Y. Lin	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,8-18 and 21-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,8-18 and 21-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9, line 1, "alloy" is misspelled. Further, claim 9 recites that the exothermic metallic powder material includes aluminum, aluminum alloy, copper, copper alloy, and oxide of cited metals. However, it is not clear how the cited the **oxide** of the cited metals can function as an exothermic material. Applicant failed to provide an example to set forth that the oxide of these metal possess exothermic property. Further, it is noted that claim 9 claims "the metallic alloy". However, the oxide of the cited metals is not a metallic alloy.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-5, 8, 9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaki et al. in view of Amos et al. and further in view of Mason.

Takaki et al. substantially show the invention as claimed except that they do not show to use an exothermic welding technique for making a termination of a wire rope and to provide a slotted opening in the socket. However, Amos et al. show to use an exothermic process for obtaining molten metal during a welding process. It would have been obvious to provide the casting apparatus of Takaki et al. with the exothermic welding apparatus of Amos et al., without using a conventional furnace for melting metal material and ladle for transferring the molten material from the furnace to the casting area, and thereby to simplify the casting process and reduce the operation cost. Further, Mason shows to provide a slotted opening in the socket to facilitate insertion of termination of a rope therein. It would have been obvious to provide the slotted opening in the socket of Takaki et al. in view of advantage. It would have been obvious to use the modified casting process of Takaki et al. for making a termination of a wire rope of any type to be used in any designated field, such as mining industry. With respect claim 4, the weight of the termination depends on the type of termination to be manufactured, it would have been obvious to adapt the modified Takaki et al. method for making the termination of light weight as well as heavy weight.

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaki et al. in view of Amos et al. and Mason as applied to claim 1 above, and further in view of Peeling.

Peeling shows that it is conventional to clean the surface of a wire rope prior to pouring molten metal onto the rope end such that to improve the bonding between the cast metal and the wire rope. It would have been obvious to clear the rope end of Takaki et al. in view of peeling. It would have been obvious to use any type of cleaning technique as long as the extraneous material can be removed from the surface of the wire rope.

6. Claims 14-18, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaki et al. in view of Mason and further in view of Peeling.

Takaki et al. substantially show the invention as claimed except that it do not show to provide a slotted opening in the socket, to use epoxy for making a termination for a wire rope and to clean the surface of a wire rope. However, Mason shows to provide a slotted opening in the socket to facilitate insertion of termination of a rope therein. It would have been obvious to provide the slotted opening in the socket of Takaki et al. in view of advantage. Further, Peeling shows that it is conventional to use either molten metal or molten epoxy for making a termination for a wire rope. It would have been obvious to use epoxy of Peeling for making a termination of Takaki et al. if that kind of product is designated. Peeling further shows that it is conventional to clean the surface of a

wire rope prior to pouring molten metal onto the rope end such that to improve the bonding between the cast metal and the wire rope. It would have been obvious to clear the rope end of Amos et al. and Takaki et al. in view of Peeling. It would have been obvious to use any type of cleaning technique as long as the extraneous material can be removed from the surface of the wire rope. With respect claim 17, the weight of the termination depends on the type of termination to be manufactured, it would have been obvious to adapt the modified Takaki et al. method for making the termination of light weight as well as heavy weight.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-5, 8-18 and 21-24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of copending Application No. 11/016,940. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed disclosure of the copending application discloses the invention as claimed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. The patent to Bergeron is cited to further show the state of the art.

10. Applicant's arguments filed September 29, 2006 have been fully considered but they are not persuasive.

a. In page 10, last paragraph of the remarks applicant stated that neither Takaki nor Amos show a slotted opening in the socket. However, the newly cited patent to Mason shows that feature to be conventional. Applicant further stated that none of the references shows the connector connecting to the mining excavation bucket. However, it would have been obvious to use the prior art casting process for making a termination of a wire rope of any type to be used in any designated field, such as mining industry.

b. In page 11, 3rd paragraph and page 12, 4th paragraph applicant stated that prior art reference does not show the claimed weight range. However, the weight of the termination depends on the type of termination to be manufactured, it

would have been obvious to adapt the modified Takaki et al. method for making the termination of light weight as well as heavy weight.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuang Y. Lin whose telephone number is 571-272-1179. The examiner can normally be reached on Monday-Friday, 10:00-6:30,.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas X. Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kuang Y. Lin
Primary Examiner
Art Unit 1725

10-5-06